

REMARKS

Claims 19-43 remain pending in the present application. Claims 1-18 have been cancelled. Claim 19 has been amended. Claims 37-43 are new. Basis for the amendments and new claims can be found throughout the specification, claims and drawings originally filed.

REJECTION UNDER 35 U.S.C. § 103

Claims 19, 20, 22, 23, 27, 28, 32, 34 and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 3356449 in view of JP 2540738. Applicants respectfully traverse this rejection.

Amended Claim 19 of the present application recites that the evaporator evaporates refrigerant by performing heat exchange with a first fluid, and the heater heats refrigerant by performing heat exchange with a second fluid different from the first fluid. In addition, at least a part of the first refrigerant path between the refrigerant discharge port of the compressor and the refrigerant shutting unit in the refrigeration cycle is used as a part of the refrigerant suction path of the energy recovery unit in the Rankine cycle, and at least a part of the second refrigerant path between the refrigerant suction port of the compressor and the evaporator is used as a part of the refrigerant discharge path of the energy recovery unit in the Rankine cycle. That is, the refrigerant flow in the compression/expansion device is opposite from each other between the refrigeration cycle and Rankine cycle.

In contrast, in JP 2540738, a refrigerant flow in the compression/expansion device (12) is the same between the refrigeration cycle and Rankine cycle as in the

solid arrow and the chain arrow from the compression/expansion device (12) in FIG. 1. Therefore, in both the refrigeration cycle and the Rankine cycle, refrigerant passes through the radiator (8) because there is no bypass passage bypassing the radiator. Therefore, the refrigerant cycle structure is completely different from that now defined in the present application.

JP 3356449 describes a different refrigerant flow in the compressor (1, 2) with an expansion function, but an evaporator in the refrigeration cycle is used as a heater in the Rankine cycle by the flow switching means (15, 16, 17, 18, 19, 20). However, it is impossible to form the refrigerant cycle structure of the present application even when the evaporator (11) and the heater (15) of the JP 2540738 are combined with the flow switching means (15-20) of JP 3356449.

Thus, Applicants believe Claim 19, as amended, patentably distinguishes over the art of record. Likewise, Claims 20, 22, 23, 27, 28, 32, 34 and 36, which ultimately depend from Claim 19, are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

REJOINDER

Applicants respectfully request the rejoinder of Claims 21, 24-26, 29-31, 33 and 35.

NEW CLAIMS

New Claims 37-43 are dependent claims which Applicants believe properly further limit their respective base claim. Applicants believe new Claims 37-43 read on the elected species, Species D, FIG. 6.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

By 

Michael J. Schmidt, 34,007

Dated: August 14, 2006

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

MJS/pmg